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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* HUGH JAMES O'DONNELL, JOHN PETER WESSON,  
CHRISTOPH DENGEL and DAVID E. McKEE

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Appeal 2009-1552  
Application 09/921,803  
Technology Center 3600

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Decided:<sup>1</sup> May 14, 2009

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Before WILLIAM F. PATE, III, LINDA E. HORNER, and  
STEVEN D.A. McCARTHY, *Administrative Patent Judges*.

HORNER, *Administrative Patent Judge*.

DECISION ON APPEAL

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

## STATEMENT OF THE CASE

Hugh O'Donnell et. al. (Appellants) seek our review under 35 U.S.C. § 134 of the Examiner's decision rejecting claims 6-8 and 16-26. Claims 1-5 and 9-15 are cancelled. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

## SUMMARY OF DECISION

We AFFIRM.

## THE INVENTION

Appellants' claimed invention is an elevator rope or belt having a waxless urethane coating. Spec. 1, para. 1. Claim 6, reproduced below, is representative of the subject matter on appeal.

6. A method of making an elevator rope assembly, comprising:

arranging a plurality of elongate load carrying members in a selected arrangement; and  
coating the load carrying members with a urethane coating that does not contain wax.

## THE EVIDENCE

The Examiner relies upon the following evidence:

Harper	US 3,848,037	Nov. 12, 1974
Wilcox	US 4,624,097	Nov. 25, 1986
Aulanko	WO 98/29326	Jul. 9, 1998

### THE REJECTIONS

Appellants seek our review of the following rejections:

1. The Examiner rejected claims 6-8, 17, 21, 23, 24, and 26 under 35 U.S.C. § 103(a) as unpatentable over Wilcox and Harper.<sup>2</sup>
2. The Examiner rejected claims 16, 18-20, and 22 under 35 U.S.C. § 103(a) as unpatentable over Wilcox, Harper, and Aulanko.

### ISSUES

The Examiner found that Wilcox discloses the method of making the rope of claims 6-8, 17, 21, 23, 24, and 26, except that the urethane coating contains wax which is used for releasability from molds. Ans. 3, 6. The Examiner found that Harper discloses a method of manufacture of polyurethane moldings using a release agent and a barrier agent that produces moldings with surfaces that are wax-free. Ans 3-4. The Examiner concluded it would have been obvious to a person of ordinary skill in the art to use the method of Harper providing releasability from molds to manufacture the rope of Wilcox without wax in the coating. Ans. 4, 6-7.

Appellants make a variety of arguments why there is no reason to combine the references as found by the Examiner, and further contend that even if combined the references do not meet the limitations of the claim because the jacket of Wilcox's rope would still contain wax. App. Br. 3-6; Reply Br. 2-3.

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<sup>2</sup> Although the Examiner included claim 25 in the first rejection (Ans. 3), claim 25 depends from claim 18, which contains the limitation that the belt has a rectangular cross-section, and should have been listed in the second rejection rather than the first. We will analyze claim 25 under the second rejection.

The first issue before us is:

Have Appellants demonstrated the Examiner erred in the rejection of claims 6-8, 17, 21, 23, 24, and 26 because there is no reason to combine the references as found by the Examiner, or because the jacket of Wilcox's rope, when modified, would still contain wax in contradiction of the claims.

Appellants further contend that the Wilcox reference cannot be modified to include metallic load carrying members, as called for in claims 24-26, because this would be in direct contradiction of Wilcox's teaching to make a rope entirely of synthetic materials. App. Br. 7; Reply Br. 3.

The second issue before us is:

Have Appellants demonstrated the Examiner erred in the rejection of claims 24-26 because the Wilcox reference cannot be modified to include metallic load carrying members?

#### FINDINGS OF FACT

We find that the following enumerated facts are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

1. Wilcox discloses a rope made entirely of synthetic plastic materials and a method of manufacture. Wilcox, col. 1, ll. 4-6.
2. Wilcox discloses an object of the invention is to manufacture the synthetic rope using conventional wire rope making techniques and equipment, except the extrusion process used to make the jacket 32 (outer coating) is not performed using conventional equipment. Wilcox, col. 1, ll. 44-46; col. 2, ll. 52-56.

3. Wilcox discloses a lubricant is used during manufacture that remains present in the finished product and is beneficial. Wilcox, col. 2, l. 68 to col. 3, l. 3; col. 3, ll. 59-61.
4. Wilcox discloses the lubricant may be fatty acid amide, or another of a variety of lubricants including various waxes. Wilcox, col. 2, l. 68 to col. 3, l. 3; col. 3, l. 59 to col. 4, l. 4.
5. Wilcox discloses that in the prior art it was known to make rope from metal wires coated with plastic materials. Wilcox, col. 1, ll. 15-25.
6. Appellants' Specification discloses that "waxes typically are included as part of the urethane manufacturing process," strongly implying urethane may be manufactured without including waxes. Spec. 1, para. 3.
7. Harper discloses a method of manufacture of polyurethane moldings by first applying a release agent (oily or waxy coating layer) to the mold, followed by overcoating the mold with a barrier layer (hydrophilic water-soluble layer), and then when the barrier layer is dry, molding a polyurethane mix in the mold. Harper, col. 2, ll. 30-37, 44-48.
8. Harper discloses that because the release agent adheres to the mold and the barrier layer adheres to the molded article, the article is easily removed. Harper, col. 2, ll. 37-38, 58-62; col. 2, l. 67 to col. 3, l. 3.
9. Harper teaches that once removed, the molded article may be washed with water, aqueous detergent or slightly alkaline aqueous solution, producing a surface that is oil- and wax-free. Harper,

col. 2, ll. 21-23, 38-39.

10. Because Harper teaches the result of the process is a molded polyurethane article with a surface that is wax-free, this indicates that the polyurethane itself does not contain wax.
11. Appellants do not provide objective evidentiary support indicating that polyurethane mixes typically contain waxes. *Spec. passim*; App. Br. *passim*; Reply Br. *passim*.

### PRINCIPLES OF LAW

Appellants have the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)). One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *See In re Keller*, 642 F.2d 413 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091 (Fed. Cir. 1986).

### ANALYSIS

*Rejection of claims 6-8, 17, 21, 23, 24, and 26 under 35 U.S.C. § 103(a) as unpatentable over Wilcox and Harper*

Appellants argue claims 6-8, 17, 21, and 23 as a group. App. Br. 3-8. As such, we select claim 6 as the representative claim, and claims 7, 8, 17, 21, and 23 stand or fall with claim 6. 37 C.F.R. § 41.37(c)(1)(vii) (2008).

Appellants make several arguments that the combination of references found by the Examiner cannot be accomplished. App. Br. 3-6; Reply Br. 2-3.

Appellants contend the Examiner's proposed modification of eliminating the wax from the jacket of Wilcox's rope cannot be accomplished because such a modified rope could not be made "using conventional rope making techniques and equipment," which is contrary to the express teaching of the reference. App. Br. 3-5 (quoting from Wilcox, col. 1, ll. 44-46). Appellants' argument ignores an important disclosure of the reference. While Wilcox discloses an object of the invention is to manufacture the synthetic rope using conventional wire rope making techniques and equipment, this does not include the process for adding the outer coating to the rope (Fact 2). In other words, Appellants' argument is based on a mischaracterization of the teaching of Wilcox, because Wilcox's coating is not made using only conventional wire rope equipment.

Appellants assert a second reason that Wilcox's rope cannot be made without wax is because "typical polyurethane mixes include waxes," and further assert that the Examiner must provide evidence to support the position that "polyurethane does not inherently include a wax." Reply Br. 2 (quoting the Ans. 6). This argument is unconvincing for two reasons. First, even assuming, *arguendo*, that Appellants are correct that typical polyurethane mixes include waxes, that fact does not necessitate the conclusion that it is not possible to produce a moldable urethane resin without wax. To the contrary, Harper indicates that a moldable polyurethane resin can be produced without wax, and Appellants' Specification also implies this is true (Facts 6, 10). Second, the Examiner does not have a



burden to prove that some polyurethane mix does not inherently include wax. The Examiner stated a prima facie case of obviousness, shifting the burden to Appellants to come forward with evidence and argument. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Appellants could have submitted objective factual evidence regarding inclusion of wax in the manufacture of polyurethane, but chose not to (Fact 11). *CFMT, Inc. v Yieldup International Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) (an applicant may submit objective factual evidence to the PTO during prosecution). Appellants' argument that typical polyurethane mixes include waxes, without objective evidentiary support, is unconvincing. *In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997) ("An assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of obviousness").

Similarly, Appellants contend that if wax was removed from the Wilcox reference entirely, as would be required by Appellants' claim 6, this would remove an intended beneficial feature and this is not permitted in a prima facie case of obviousness. Reply Br. 2-3. We disagree with the premise of this contention. Claim 6 contains the limitation that the rope has a urethane coating that does not contain wax; claim 6 does not require the entire rope to be wax-free. Additionally, Appellants recite no legal authority for the contention that a reference must retain all of its intended beneficial features in a rejection based on obviousness, and we know of no such rule.

Appellants contend there is no reason to combine the references as proposed by the Examiner because Harper teaches a method of producing polyurethane articles with a paintable surface and Wilcox's rope is not

painted. App. Br. 5; Reply Br. 3. In addition to producing a paintable surface, the Examiner found that a person of ordinary skill would find it obvious to modify Wilcox with the teachings of Harper “for savings in costs, ease of sourcing and performance.” Ans. 4. By not even addressing these reasons to combine, Appellants have failed to demonstrate error in the Examiner’s position. *In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006).

Appellants also contend that using the technique of Harper will not change the content of the jacket of Wilcox’s rope, which would still contain wax contrary to the limitation of claim 6. App. Br. 6. Appellants are ignoring the rejection as articulated by the Examiner. The Examiner did not find that Harper’s method removes the wax from the coating of Wilcox’s rope; rather, the Examiner’s rejection modifies Wilcox by using a polyurethane coating without wax and coating the mold with release agent and barrier layer intermediate the release agent and the surface of the polyurethane, as suggested by Harper. Ans. 4, 5-7. By attacking the Wilcox reference individually, and not addressing the rejection as articulated by the Examiner, Appellants have failed to demonstrate error in the Examiner’s decision to reject claim 6. *See In re Keller*, 642 F.2d 413 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091 (Fed. Cir. 1986).

Appellants have failed to demonstrate error in the Examiner’s decision to rejection claim 6. Claims 7, 8, 17, 21, and 23 fall with claim 6.

*Claims 24 and 26*

Claims 24 and 26 each contain the limitation that the plurality of elongate members are metallic.<sup>3</sup> In reaching the conclusion of obviousness,

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<sup>3</sup> Claim 24 depends from independent claim 6, and claim 26 depends from independent claim 21.

the Examiner found that Wilcox discloses a plurality of elongate load carrying members that are metallic, citing to column 1, lines 15 to 25 of Wilcox. Ans. 3. The rejection does not point out that Wilcox makes this disclosure as prior art, and not as Wilcox's own device. The rejection then more accurately would be described not as a modification of Wilcox's device, but rather as a modification of the prior art device disclosed in Wilcox. We conclude Appellants had a fair opportunity to respond to the thrust of this rejection because the clarified rejection is under the same statutory section (35 U.S.C. § 103(a)) and over the same prior art (Wilcox and Harper). *In re Kronig*, 539 F.2d 1300, 1302-1303 (CCPA 1976). Further, the rejection specifically points to the portion of Wilcox that makes clear the disclosure related to metallic load bearing members was not Wilcox's device, but rather was in the prior art.

Appellants contend that "[t]he Examiner has not established any teaching of metallic load carrying members in the context of the *Wilcox* reference." App. Br. 7. To the contrary, Wilcox discloses it was known to make ropes using metallic wires as the load carrying members, coated with plastic materials (e.g. polyurethane) (Fact 5). Appellants also contend that the Wilcox reference cannot be modified to include metallic load carrying members because this would be in direct contradiction of Wilcox's teaching to make a rope entirely of synthetic materials. App. Br. 7; Reply Br. 3. This is also an unconvincing argument because the modification as stated in the Examiner's rejection is not of Wilcox's rope, but rather of the prior art rope disclosed by Wilcox. Appellants have failed to demonstrate error in the Examiner's decision to reject claims 24 and 26.

*Rejection of claims 16, 18-20, 22 and 25 under 35 U.S.C. § 103(a) as unpatentable over Wilcox, Harper, and Aulanko*

*Claims 16, 18-20, and 22*

Appellants argue claims 16, 18-20, and 22 as a group. App. Br. 3-8. As such, we select claim 16 as the representative claim, and claims 18-20 and 22 stand or fall with claim 16. 37 C.F.R. § 41.37(c)(1)(vii) (2008).

Claim 16 depends from claim 6, and adds the limitation that the urethane coating has a rectangular cross-section. The Examiner rejected claim 16 as unpatentable over Wilcox and Harper as found for the rejection of claim 6, modified with the rectangular cross-section taught by Aulanko. Appellants do not contest the modification taught by Aulanko, but rather contend that Aulanko does not correct the deficiencies of the Wilcox and Harper combination as pointed out in the arguments against claim 6. App. Br. 7. As we concluded in the analysis of claim 6, *supra*, these arguments fail to demonstrate error in the Examiner's decision. Claims 18-20 and 22 fall with claim 16.

*Claim 25*

Claim 25 depends from claim 18, and contains the limitation that the plurality of elongate load carrying members are metallic. For the reasons set forth in the analysis of claim 24 and 26, *supra*, as well as claim 18, *supra*, Appellants have failed to demonstrate error in the Examiner's decision to reject claim 25.

## CONCLUSIONS

Appellants have failed to demonstrate the Examiner erred in articulating a reason to combine Wilcox and Harper, as stated in the rejection of claims 6-8, 17, 21, 23, 24, and 26. Further, Appellants have

failed to demonstrate the combination found by the Examiner was in error because the jacket of Wilcox's rope in the modification proposed by the Examiner would not contain wax, so that it conforms to the limitation of the claims.

Appellants have also failed to demonstrate the Examiner erred in determining that the Wilcox reference can be modified to include metallic load carrying members, as called for in claims 24-26.

#### DECISION

We affirm the Examiner's rejection of claims 6-8 and 16-26.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

#### AFFIRMED

vsh

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